

What SMPL can do for you:

If you own property with a creek in Contra Costa County, these services are available to you at *no charge*.

- **Site Visit and Consultation:**

Urban Creeks Council staff will provide a site evaluation and advice on how to address issues such as creek bank failure, erosion, and flooding.

- **Neighborhood Workshops:**

UCC will lead a workday at a demonstration site in your neighborhood, leaving the community equipped to address shared issues as a whole.

- **Technical Advice:**

UCC staff will provide information on restoration techniques you can implement and direct you to qualified local engineers, landscape architects, and other related consultants and contractors.

- **Restoration Project Permitting:**

Restoration projects must meet federal, state and local agency regulations in the form of permits. UCC can help guide you through this regulatory process.

- **Community Presentations:**

Is your neighborhood interested in learning about your creek? UCC can provide a "Creeks 101" presentation to give your community a greater understanding of creek dynamics, common problems and solutions, and proper creek maintenance.

Urban Creeks Council

The Urban Creeks Council was founded in 1982 to preserve, protect, and restore urban creeks through community based activities, programs, and projects. Since its founding, UCC has designed and installed dozens of restoration projects, both independently and in partnership with other local organizations.

Activities of the Urban Creeks Council include:

- ♦ Physical stream restoration projects;
- ♦ Advocacy and outreach on behalf of creeks and watersheds;
- ♦ Creek and watershed management for local agencies;
- ♦ Trainings and workshops for citizens, officials, and consultants;
- ♦ Public education;
- ♦ Involvement in planning and policy affecting creeks and watersheds in the Bay Area;
- ♦ Programs designed to serve creeks and creekside residents, and protect and preserve the riparian ecosystems of the San Francisco Bay Area.

URBAN CREEKS COUNCIL

510.540.6669

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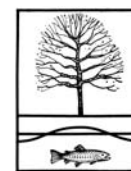
Streamside Management Program for Landowners in Contra Costa County

The Urban Creeks Council provides free advice about creek care, restoration, and maintenance for Contra Costa County landowners.

Funding for this service is provided by the Contra Costa Clean Water Program.



Streambank erosion in Contra Costa County.



Urban Creeks Council



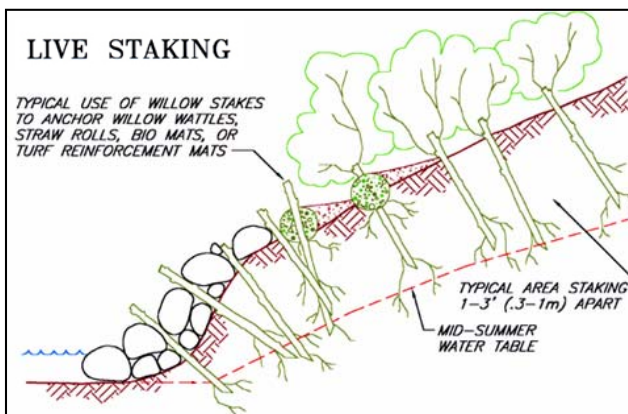
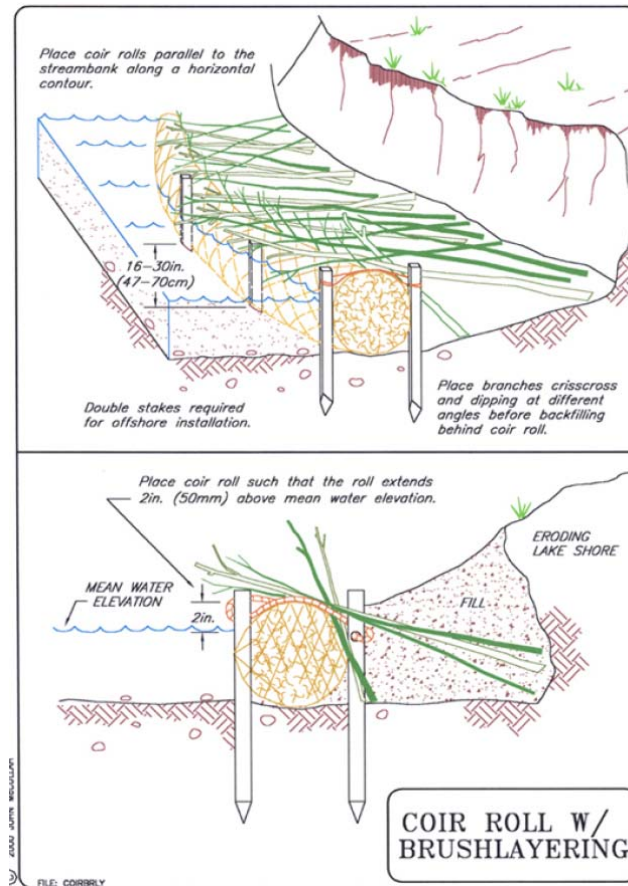
Erosion Control, Naturally

The **Urban Creeks Council** promotes soil bioengineering — a geotechnical technique that uses plant materials to mimic natural conditions in a stream in order to accomplish the following objectives: bank stabilization, erosion control, improved overall habitat quality. It combines structural, biological, and ecological concepts through the use of live plant materials and flexible engineering techniques. This approach has many benefits over “traditional” erosion control methods. Some of the benefits include:

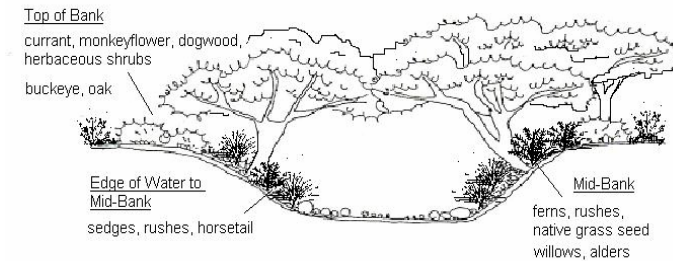
- **Cost Effectiveness:** Willow cuttings can be locally harvested. Many of these techniques can be performed by the homeowner. Financially, when compared to the long-term maintenance costs and predicted lifespan replacement issues associated with traditional structural solutions, soil bioengineering is very cost effective.
- **Long-term Stability:** Planting riparian vegetation can offer the best long-term protection against erosion. Their roots have a higher tensile strength value than concrete and absorb the stream's erosive energy without deflecting the problem downstream. Fast rooting riparian vegetation quickly provides structure and stability to a slope.
- **Improved habitat for local flora and fauna:** Riparian plants provide food and shelter for birds and wildlife. Furthermore, once established, trees grow into a riparian canopy that keeps water temperatures relatively cool, allowing instream fauna to thrive.
- **Highly Encouraged by Regulatory Community:** These techniques are often required by permitting agencies like CA Fish and Game.

A typical problem experienced by streamside landowners is bank erosion.

Below are examples of solutions that employ two commonly applied soil bioengineering techniques: brushlayering and live staking.



Riparian Plants for Creeks



Zone A: Edge of active channel, at toe of slope to mid-bank.

Some Zone A Plants:

- ♦ Red, Pacific, or Arroyo Willow
- ♦ White Alder
- ♦ Cottonwood
- ♦ Elderberry
- ♦ Big Leaf Maple
- ♦ Currant
- ♦ Dogwood
- ♦ Sedges
- ♦ Rushes
- ♦ Ninebark

Zone B: Mid-bank to top of bank.

Some Zone B Plants:

- ♦ CA Bay
- ♦ CA Buckeye
- ♦ Western Sycamore
- ♦ CA Blackberry
- ♦ Gooseberry
- ♦ Wild Rose
- ♦ Snowberry
- ♦ Western Sword and Wood Fern
- ♦ Honeysuckle
- ♦ Coffeeberry
- ♦ Pacific Wax Myrtle
- ♦ Currant
- ♦ Spice Bush
- ♦ Hazelnut

Zone C: Top of bank.

Some Zone C Plants:

- ♦ CA Bay
- ♦ CA Buckeye
- ♦ Coast Live Oak
- ♦ Coast Silk Tassel Bush
- ♦ Dwarf Coyote Bush
- ♦ Manzanita spp.
- ♦ Ceanothus spp.
- ♦ Gooseberry
- ♦ Hazelnut
- ♦ Toyon
- ♦ Western Redbud
- ♦ Purple Needlegrass
- ♦ Deergrass